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EXAMINER

RADI, JOHN A

ART UNIT

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Please find below and/or attached an Office communication concerning this application or proceeding.



## **DETAILED ACTION**

### ***Information Disclosure Statement***

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The inventive concept seems to lie in the communication between propellant holder and the setting tool, however the specification in pages 12-14 don't specify enough specifics regarding the communications between the propellant and setting tool so as to enable one skilled in the art to make or use the invention.

In particular, with respect to a propellant located on a blister magazine strip, the specification doesn't specify in what way the magnetic strip interacts with the propellant

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to store information regarding the remaining propellant – does the magnetic strip run along the magazine strip so as to contain an actual number (i.e. “this is charge 23 of 36”), or does the magnetic strip simply indicate another charge of propellant has entered the chamber to be fired. In the first instance, the changing of magazine containers would allow the setting tool to automatically know how many charges remain in the magazine, in the latter example, changing of the magazine would require the user to reset the tool’s eeprom and reprogram it with remaining charges. Or perhaps the magnetic strip interacts in another undetermined way. Whatever the case, the summary of the invention and the detailed description fail to give sufficient information regarding how the magnetic strip interfaces with the setting tool to communicate how it works.

With respect to a propellant in the form of a pressurized gas cylinder, the specification fails to mention how the associated transponder tag interacts with the pressurized cylinder to determine the remaining charge. Is the transponder using a read-out of the remaining pressure in the cylinder, counting how many times a charge has been taken from the cylinder, or some other undetermined manner? As it is, the summary of the invention and the detailed description fail to give sufficient information to enable one skilled in the art to make or use the claimed invention.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6, 7, 10-13, 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by MacVicar (US 6247626).

MacVicar discloses a propellant holder (34) for a setting tool (fig. 1), comprising a housing for receiving propellant (34); and a data identification unit (figure 23) in which supply level is stored for being read out (fig. 23, "fuel pressure sensor").

With respect to claims 2, 6, and 15 regarding the data communications interface (microprocessor detailed in figure 23), the data storage identification unit (fuel control circuit detailed in figure 17), and the communications between the pressure indication and the data communications interface is by means of a contact element (see figures 17, 23, 31, and 34 which show in schematic view the communications path between fuel pressure sensor, processor, and fuel valves).

With respect to claims 3, wherein the data storage identification unit is formed as eeprom (col 14 line 66 to col. 15 line 15 depicts the use of eeprom or eprom for the storage and processing of various inputs, including vessel pressure).

With respect to claim 7 and 16, MacVicar teaches use of a magnetic sensor in the magazine to detect when empty and send an alert via user interface (col. 19, lines 5-16).

With respect to claim 10, an ignition means (84, 88), a receptacle for receiving the fuel vessel (see figure 1, setting tool area surrounding pressure vessel 34), a display (fig. 23, user interface module and visual display).

With respect to claim 11, wherein the data processing unit (fig. 23, 300) is connected with the ignition means (see also figure 40h which details the control logic associated with a firing cycle).

With respect to claim 12, wherein firing of the tool isn't done until the microprocessor verifies fuel level and other necessary conditions are met (col. 26 9-40 depict the firing sequence in which the gun will not fire until several requirements are first met, including fuel pressure).

With respect to claim 13, wherein the data communications interface is located in a region of the propellant holder, while MacVicar doesn't show the location of the microprocessor and associated eeprom and control logic circuitry, wherever it is located on the body of the setting tool can be said to be "within the region" of the propellant holder which is at the rear end of the gun.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4, 5, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacVicar (US 6247626) in view of Thomas et al. (US 20010045892)

MacVicar discloses the invention as described above with respect to claims 1, 2 and 10, but doesn't teach a wireless communications path between the data communications interface and the data storage unit. Thomas and MacVicar are in the same field of endeavor in so far as they are both aimed at means for determining the fuel level remaining in pressure tanks. Thomas teaches a wireless gauge alert system for use in a pressure vessel, to communicate from the pressure vessel's antennae (fig. 3b, 60) to the data communications interface (fig. 6b, 128) via wireless method (receiver 122). The motivation for combining can be found in Thomas, which teaches the use in order to alert the user when the vessel's level gets below a predetermined alert and notify the user to change canisters (paragraph 5). Therefore, MacVicar can be combined with Thomas to provide wireless communication between the pressure vessel and the setting tool, and to notify the user when the pressure vessel must be refilled or exchanged. Therefore, it would have been obvious to one skilled in the art at the time of invention to combine Thomas and MacVicar to read on the claimed invention.

### ***Conclusion***


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached form PTO-892 for related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Radi whose telephone number is 571-272-5883. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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